CLAIMS

What is claimed is:

1. A method of checking a sequence of input characters according to rules of a selected language, comprising the steps of:

receiving a first character;

determining whether the first character may begin a valid sequence of characters according to rules associated with the selected language;

if the first character may begin a valid sequence of characters according to rules associated with the selected language, accepting the first character for display; and

if the first character may not begin a valid sequence of characters according to rules associated with the selected language, prohibiting accepting the first character for display.

2. The method of Claim 1, further comprising the steps of:

receiving a second character;

determining whether the second character may be appended to the first character according to rules associated with the selected language;

if the second character may be appended to the first character according to the rules associated with the selected language, appending the second character sequentially to the first character; and

if the second character may not be appended to the first character according to the rules associated with the selected language, prohibiting appending the second character to the first character.

32

3. The method of Claim 1, wherein the step of determining whether the second character may be appended to the first character according to rules associated with the selected language includes the steps of:

in a state transition table, assigning a first state to the first character according to the rules associated with the selected language;

assigning a second state to the second character according to the rules associated with the selected language;

determining whether the state transition table includes a state transition from the first state to the second state; and

if the state transition table includes a state transition from the first state to the second state, determining the second character may be appended to the first character according to the rules associated with the selected language; and

if the state transition table does not include a state transition from the first state to the second state, determining the second character may not be appended to the first character according to the rules associated with the selected language.

4. The method of Claim 3, further comprising the steps of:

determining whether appending the second character to the first character creates a complete sequence of characters according to the rules associated with the selected language;

if the sequence of characters is a complete sequence of characters according to the rules associated with the selected language, determining whether a third input character may begin a second valid sequence of characters according to rules associated with the selected language;

if the third character may begin a second valid sequence of characters according to rules associated with the selected language, accepting the third character for display; and

if the third character may not begin a second valid sequence of characters according to rules associated with the selected language, prohibiting accepting the third character for display.

5.   The method of Claim 4, wherein the step of determining whether appending the second character to the first character creates a complete sequence of characters according to the rules associated with the selected language includes the step of:

determining whether the second state points to a third transition state representing a reset transition action.

6.   The method of Claim 1, wherein the step of appending the second character to the first character includes the step of combining the first and second characters according to the rules associated with the selected language to form a single complex character.

7.   The method of Claim 1,

wherein the step of prohibiting appending the second character to the first character includes the step of prohibiting the display of the second character with the first character on a display screen, and

wherein the step of appending the second character to the first character includes the step of displaying the second character with the first character on the display screen.

8.   The method of Claim 1, wherein the first character is a simple character from the selected language.

9.   The method of Claim 1, wherein the first character is comprised of two or more simple characters from the selected language.

10. The method of Claim 1, wherein the second character is a simple character from the selected language.

11. The method of Claim 1, wherein the selected language is Thai.

12. The method of Claim 1, wherein the selected language is Hindi.

13. The method of Claim 1, wherein the selected language is Vietnamese.

14. A computer-readable medium on which is stored a computer program for checking a sequence of input characters according to rules of a selected language, the computer program comprising instructions, which when executed by a computer, perform the steps of:

receiving a character;

determining whether the character may be appended to a previous character to form a sequence of characters according to rules associated with the selected language;

if the character may be appended to the previous character according to the rules associated with the selected language, appending the character to the previous character to form a sequence or characters according to the rules associated with the selected language; and

if the character may not be appended to the previous character according to the rules associated with the selected language, prohibiting appending the character to the previous character.

15. The method of Claim 14, further comprising the steps of:

determining whether the sequence of characters is a complete sequence in accordance with the rules associated with the selected language;

if the sequence of characters is a complete sequence of characters according to the rules associated with the selected language prohibiting appending additional characters to the sequence of characters.

16. A method of checking a sequence of input characters according to rules of a selected language, comprising the steps of:

receiving an input character;

if the character is not associated with the selected language, displaying the character;

if the character is associated with the selected language, determining whether the character may be displayed as a single character according to the rules of the selected language;

if the character may not be displayed as a single character according to the rules of the selected language, determining whether the character may be appended to one or more additional characters to form a valid sequence of characters according to the rules of the selected language;

if the character may not be appended to one or more additional characters to form a valid sequence of characters, discarding the character; and

if the character may be appended to one or more additional characters to form a valid sequence of characters, displaying the character.

17. A method of establishing the sequence validation context of a sequence of characters comprising a complex character, comprising the steps of:

determining the maximum number of characters that may comprise a valid sequence of characters according to the rules of a selected language;

beginning with the last simple character of a sequence of characters, determining whether the last character is valid as a complete sequence of characters comprising a complex character,

if the last character of the sequence of characters is valid as a complete sequence of characters comprising a complex character, then returning the context of the input character as a context for a complex character;

if the input character of a sequence of characters is not valid as a complete sequence of characters comprising a complex character, then determining whether a combination of the last character and the character input immediately to the left of the last character is valid as a complete sequence of characters comprising a complex character,

if the combination of the last character and the character input immediately to the left of the last character is valid as a complete sequence of characters comprising a complex character, then returning a context for the combination as the context for a complex character;

if the combination is not valid as a complete sequence of characters comprising the complex character, then determining whether the combination combined with the next character to the left of the combination is valid as a complete sequence of characters comprising a complex character, and if not, then creating subsequent combinations of characters by adding one at a time additional characters input to the left of the last subsequent combination until the maximum number of characters that may comprise a valid sequence have been combined to form a sequence of characters that may be checked for validity as a complete sequence of characters comprising a complex character; and

if any said subsequent combination of characters are valid as a complete sequence of characters comprising a complex character according

to the rules of the selected language, then returning a context for said any said subsequent combination as the context for a complex character.

18. A system for checking a sequence of input characters according to rules of a selected language, comprising:

a computer program module operative

to receive a first character;

to determine whether the first character may be the first character of a sequence of characters according to the rules associated with the selected language;

to receive a second character;

to determine whether the second character may be appended sequentially to the first character according to rules associated with the selected language;

to append the second character sequentially to the first character if the second character may be appended to the first character according to the rules associated with the selected language; and

to prohibit appending the second character to the first character if the second character may not be appended to the first character according to the rules associated with the selected language.